

CITY OF

FLAGSTAFF



August 6, 2015

UTILITIES RATE STUDY

Utilities Rates and Charges

Report

Final Draft Report

Report 1 of 2



Executive Summary

1.1. Introduction and Brief Background

Willdan Financial Services (“Willdan”) was retained by the City of Flagstaff, AZ (“City”) to conduct a Utilities Rate Study (“Utilities Rate Study”) for the City’s Water, Sewer, Reclaimed Water and Stormwater Utilities. In order to expedite the prosecution of the Utilities Rate Study, it was segmented into two separate components, each of which has been documented by its own stand-alone report. Report 1 of 2 is the report which documents the Utilities Rates and Charges analysis, referred to herein as the Rate Study. Report 2 of 2 is the Water and Sewer Capacity Fee Report. Both reports should be reviewed in order to gain a full understanding of the data, assumptions and results of the Utilities Rate Study.

This Rate Study Report details the results of the Rate Study for the six-year period Fiscal Years 2015-2020.

The results of the Rate Study presented herein are a financial plan, and associated rates and charges, which were designed to provide revenues sufficient to fund the ongoing operating and capital costs necessary to operate the Utility, while meeting the financial requirements and goals set forth by the City for the Water Utility, Sewer Utility, Reclaimed Water Utility and Stormwater Utility.

Brief Description of Water, Sewer and Reclaimed Water Scenarios

The scenarios for water, sewer and reclaimed water center primarily around the Financial Policy that Utilities have no more than 20% of revenues dedicated the payment of debt service. During our first pass at the analysis it was decided to relax this requirement in order to mitigate the need for higher rate increases being caused solely to meet this one policy. During our presentations to the Water Commission this topic was discussed and it was requested that we develop another scenario which held more firmly to this policy such that in no year of the forecast period did debt service exceed 20% of annual revenue – even if rates needed to be higher to do so, which was the case.

For purposes of this Report, scenarios which allow the 20% debt service threshold to be exceeded are noted as Option 1 scenarios. Scenarios which do not allow the 20% debt service threshold to be exceeded are noted as Option 2 scenarios. For water, we have sub-scenarios under both Options 1 and 2 to reflect 3 alternative rate design options for consideration by the City.

Brief Description of Stormwater Scenarios

The scenarios for stormwater center primarily around the need to fund stormwater capital projects and the requisite stormwater rate increases required to fund various levels of capital given the type of funding, cash only versus a mixture of cash/debt, used to fund the capital plan.

A summary of the scenarios presented in this report follows in this Executive Summary. A more thorough exposition of the data, analysis and results of this Rate Study is presented in the main body of the report.

Water, Sewer, Reclaimed Water and Stormwater Rate Study

Final Draft Report
Report 1 of 2
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Description of Water Rate Study Options			
Option	Financial Plan Option	Description of Financial Plan Option	Description - Rate Structure Option
Option 1			
Option 1a	3% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold	No Change in Existing Rate Structure - Increase all Existing Rates by 3% per Year
Option 1b	3% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold	Change Existing Rate Structure - Expand Residential Tiers to Nearest Upper 1,000
Option 1c	3% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold	Keep Existing Rate Tiers for Residential - Include Non-Residential In Tiered Structure

Option 2			
Option 2a	7% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold	No Change in Existing Rate Structure - Increase all Existing Rates by 7% per Year
Option 2b	7% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold	Change Existing Rate Structure - Expand Residential Tiers to Nearest Upper 1,000
Option 2c	7% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold	Keep Existing Rate Tiers for Residential - Include Non-Residential In Tiered Structure

Description of Sewer Rate Study Options		
Option	Financial Plan Option	Description
Option 1	5.5% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold
Option 2	7.0% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold

Description of Reclaimed Water Rate Study Options		
Option	Financial Plan Option	Description
Option 1	3.0% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold
Option 2	7.0% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold

Description of Stormwater Rate Study Options		
Option	Financial Plan Option	Description
Option 1	3.0% Annual Increase in Rate Revenue	Funds Baseline \$400,000 per year of Capital Projects - with Cash
Option 2	6.0% Annual Increase in Rate Revenue	Funds \$600,000 per year of Capital Projects - with Cash
Option 3	6.0% Annual Increase in Rate Revenue	Funds \$1,000,000 per year of Capital Projects - with Cash/Debt
Option 4	15.0% Annual Increase in Rate Revenue	Funds Rio De Flag Capital Projects (~\$15M) - with Cash/Debt

Water Rate Study Development and Results

1.2. Summary of Water Rate Study Scenarios and Results

During the conduct of the Rate Study, we evaluated numerous options. The following are the options agreed upon by Staff and Willdan, after review of several options with the Water Commission, which warranted inclusion in the Report.

The following table summarizes the Water Rate Study Options, followed by a table which presents a selection of summary customer impacts. Further review of any particular scenario may be done by reviewing the requisite section of the report pertaining to the option the reviewer wishes to investigate.

Description of Water Rate Study Options			
Option	Financial Plan Option	Description of Financial Plan Option	Description - Rate Structure Option
Option 1			
Option 1a	3% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold	No Change in Existing Rate Structure - Increase all Existing Rates by 3% per Year
Option 1b	3% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold	Change Existing Rate Structure - Expand Residential Tiers to Nearest Upper 1,000
Option 1c	3% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold	Keep Existing Rate Tiers for Residential - Include Non-Residential In Tiered Structure
Option 2			
Option 2a	7% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold	No Change in Existing Rate Structure - Increase all Existing Rates by 7% per Year
Option 2b	7% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold	Change Existing Rate Structure - Expand Residential Tiers to Nearest Upper 1,000
Option 2c	7% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold	Keep Existing Rate Tiers for Residential - Include Non-Residential In Tiered Structure

1.2.1 Water Rate Options

The Water Rate Option Scenarios presented incorporate the two (2) primary Water Revenue Sufficiency Options, presented in the Water Revenue Sufficiency Analysis Section as Options 1 and 2. Within each of these two (2) Water Revenue Sufficiency Options, we have developed three (3) alternative Water Rate Structures for consideration. This results in six (6) unique Water Rate Scenarios as described below.

Water Rate Options associated with Water Revenue Sufficiency Option 1

Option 1A. Keep existing Water Rate Tiers

Incorporates application of 3% annual water rate increase (assumed to be implemented January of each year)

Option 1B. Update Water Rate Tiers to next highest 1,000 gallon increment

Incorporates application of 3% annual water rate increase (assumed to be implemented January of each year)

Option 1C. Keep existing Water Rate Tiers / Add Tiered Rate Structure for Non-Residential class

Incorporates application of 3% annual water rate increase (assumed to be implemented January of each year)

Water Rate Option associated with Water Revenue Sufficiency Option 2

Option 2A. Keep existing Water Rate Tiers

Incorporates application of 7% annual water rate increase (assumed to be implemented January of each year)

Option 2B. Update Water Rate Tiers to next highest 1,000 gallon increment

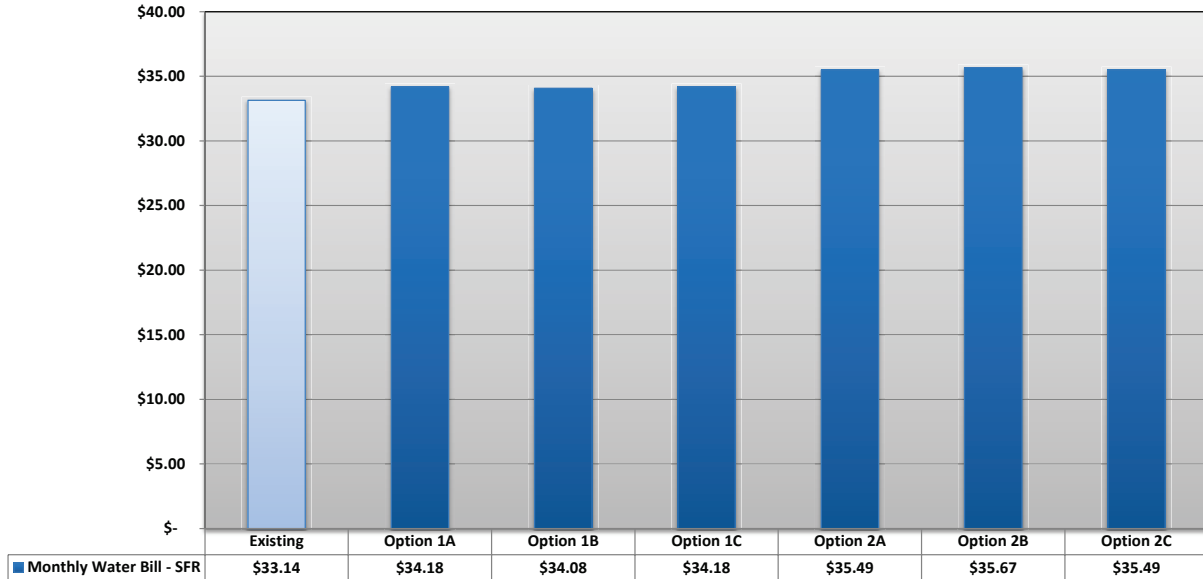
Incorporates application of 7% annual water rate increase (assumed to be implemented January of each year)

Option 2C. Keep existing Water Rate Tiers / Add Tiered Rate Structure for Non-Residential class

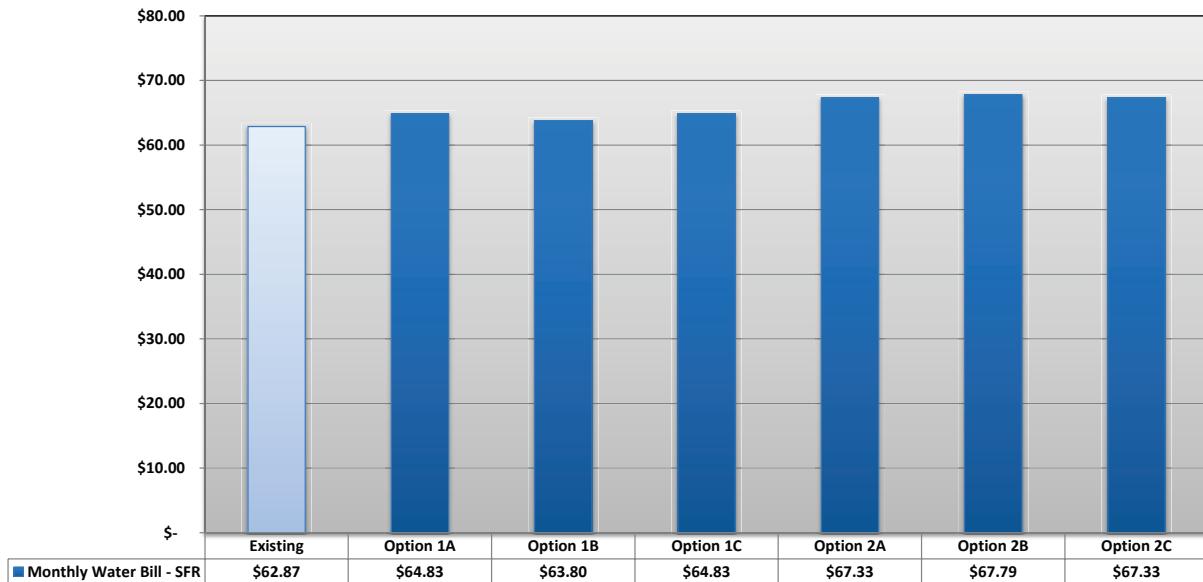
Incorporates application of 7% annual water rate increase (assumed to be implemented January of each year)

A summary of the customer impact of each rate option above is presented below for a Single Family Residential customer using 5,000 gallons and 10,000 gallons per month.

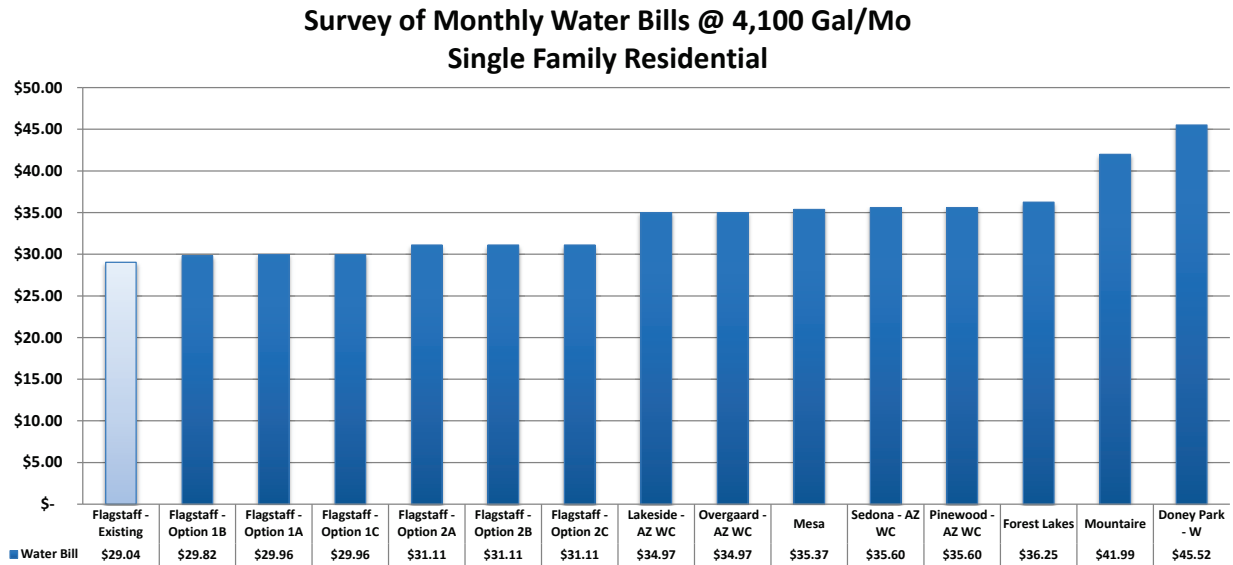
Monthly Water Bill - Single Family Residential - Using 5,000 Gal/Mo



Monthly Water Bill - Single Family Residential - Using 10,000 Gal/Mo



Survey of Water Bills for Single Family Customers with 4,100 Gallons of Monthly Water Use



Sewer Rate Study Development and Results

1.3. Summary of Sewer Rate Study Scenarios and Results

During the conduct of the Rate Study, we evaluated numerous options. The following are the options agreed upon by Staff and Willdan, after review of several options with the Water Commission, which warranted inclusion in the Report.

The following table summarizes the Sewer Rate Study Options, followed by a table which presents a selection of summary customer impacts. Further review of any particular scenario may be done by reviewing the requisite section of the report pertaining to the option the reviewer wishes to investigate.

Description of Sewer Rate Study Options		
Option	Financial Plan Option	Description
Option 1	5.5% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold
Option 2	7.0% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold

1.3.1.1. Sewer Rate Option 1

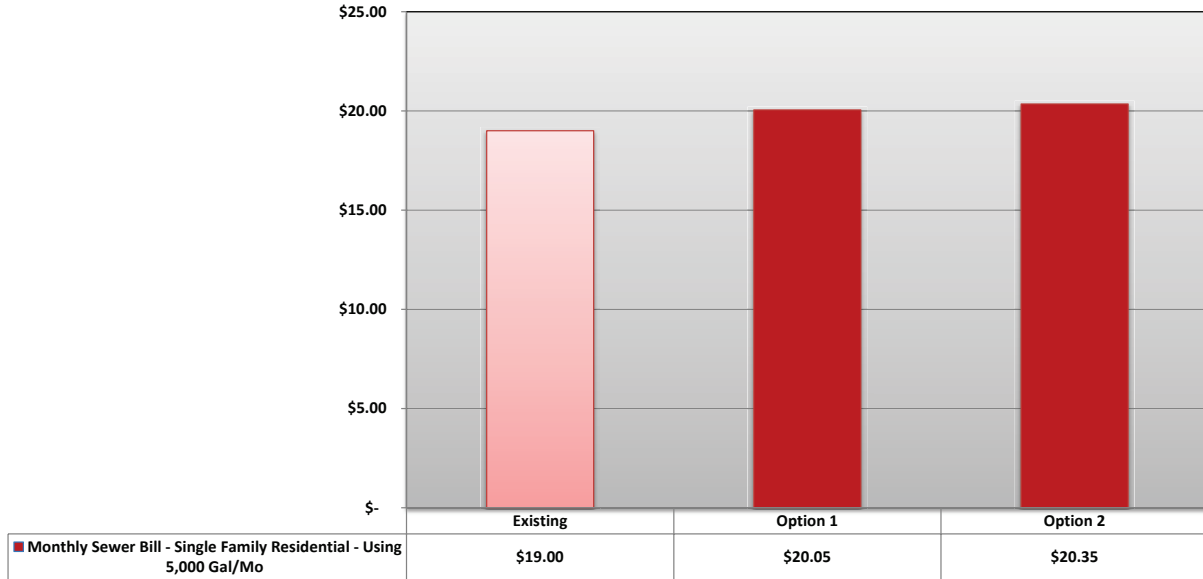
Sewer rate option 1 assumes the existing flow rate is increased by 5.5% in order to meet all funding requirements and financial policies EXCEPT the policy that the Utility maintain debt service at less than 20% of revenues.

1.3.1.2. Sewer Rate Option 2

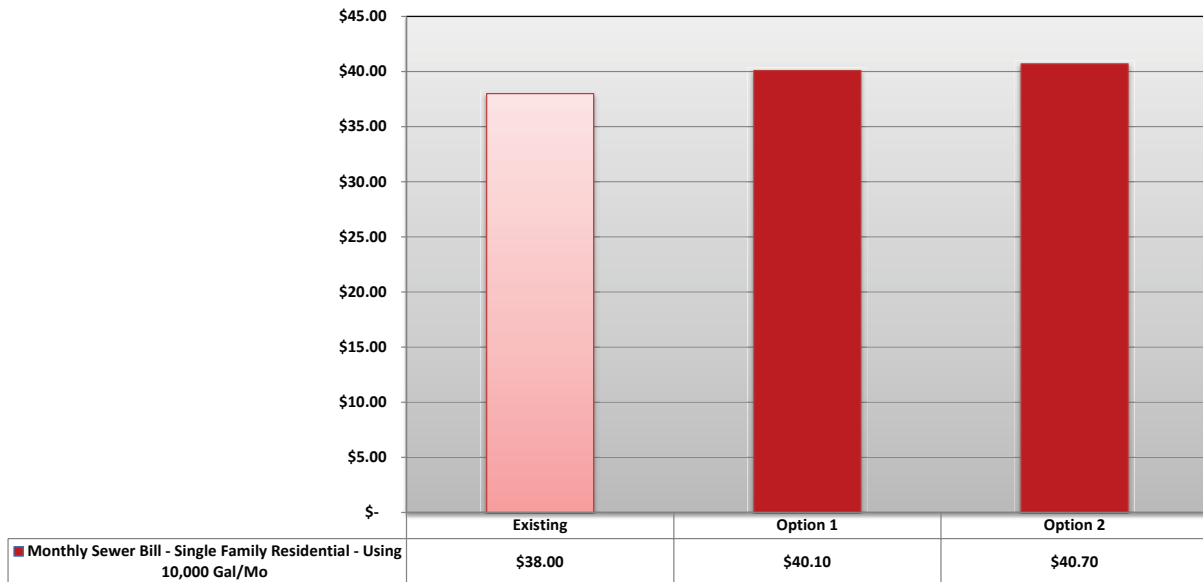
Sewer rate option 2 assumes the existing flow rate is increased by 7.0% in order to meet all funding requirements and financial policies INCLUDING the policy that the Utility maintain debt service at less than 20% of revenues.

A summary of the customer impact of each rate option above is presented below for a Single Family Residential customer using 5,000 gallons and 10,000 gallons per month.

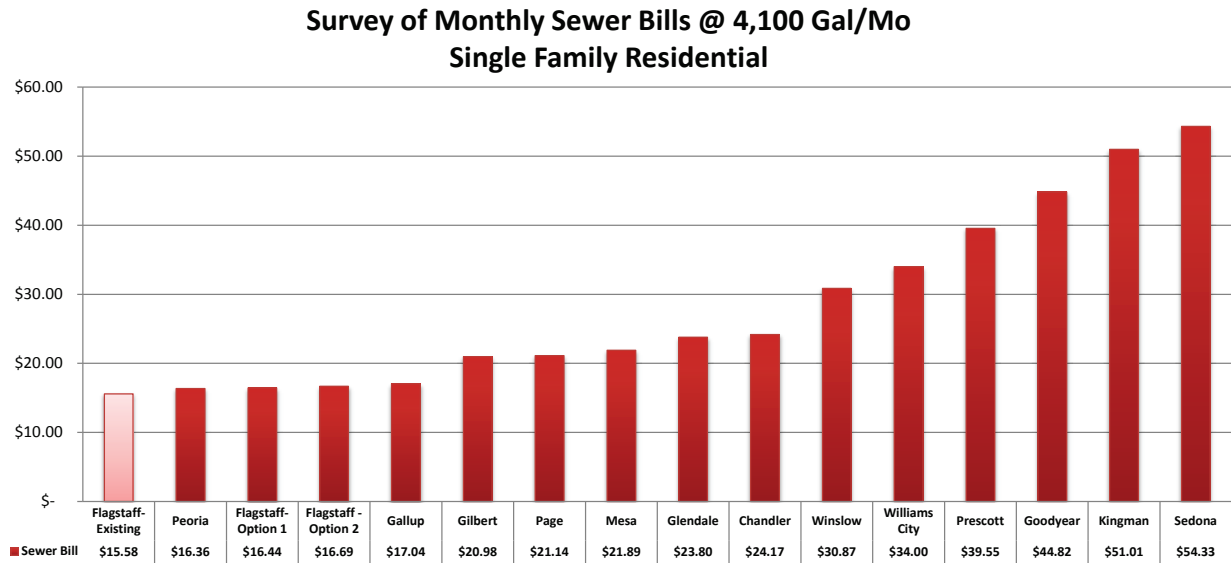
Monthly Sewer Bill - Single Family Residential - Using 5,000 Gal/Mo



Monthly Sewer Bill - Single Family Residential - Using 10,000 Gal/Mo



Survey of Sewer Bills for Single Family Customers with 4,100 Gallons of Monthly Water Use



Reclaimed Water Rate Study Development and Results

1.4. Summary of Reclaimed Water Rate Study Options

During the conduct of the Rate Study, we evaluated numerous options. The following are the options agreed upon by Staff and Willdan, after review of several options with the Water Commission, which warranted inclusion in the Report.

The following table summarizes the Reclaimed Water Rate Study Options. Further review of any particular scenario may be done by reviewing the requisite section of the report pertaining to the option the reviewer wishes to investigate.

Description of Reclaimed Water Rate Study Options		
Option	Financial Plan Option	Description
Option 1	3.0% Annual Increase in Rate Revenue	Meets all funding / financial policies EXCEPT 20% Debt Service Threshold
Option 2	7.0% Annual Increase in Rate Revenue	Meets all funding / financial policies INCLUDING 20% Debt Service Threshold

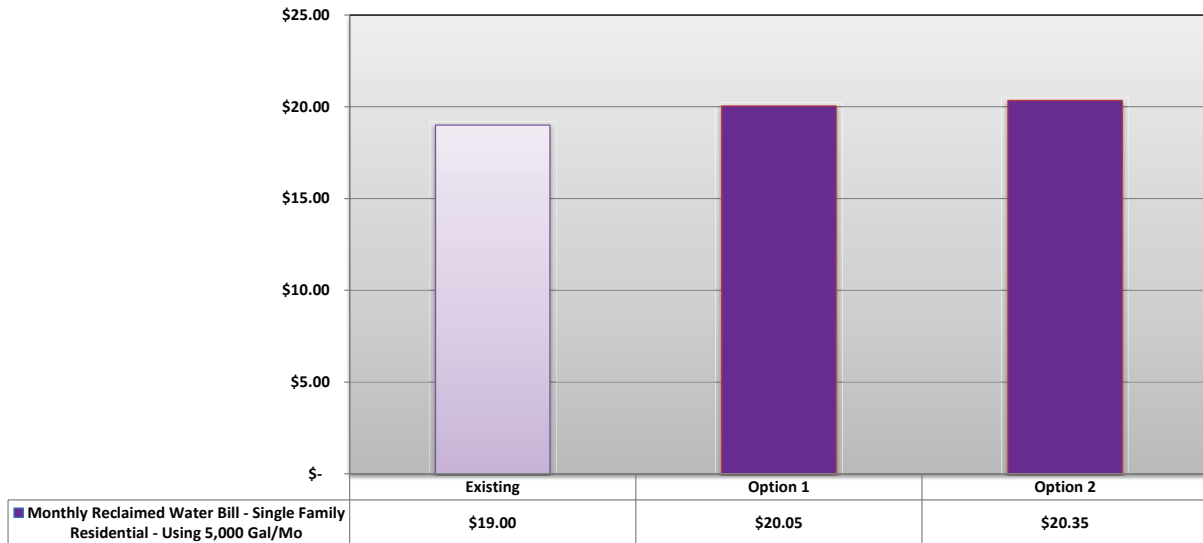
1.4.1.1. Reclaimed Water Rate Option 1

Reclaimed water rate option 1 assumes the existing reclaimed water rates are increased by 3.0% in order to meet all funding requirements and financial policies EXCEPT the policy that the Utility maintain debt service at less than 20% of revenues.

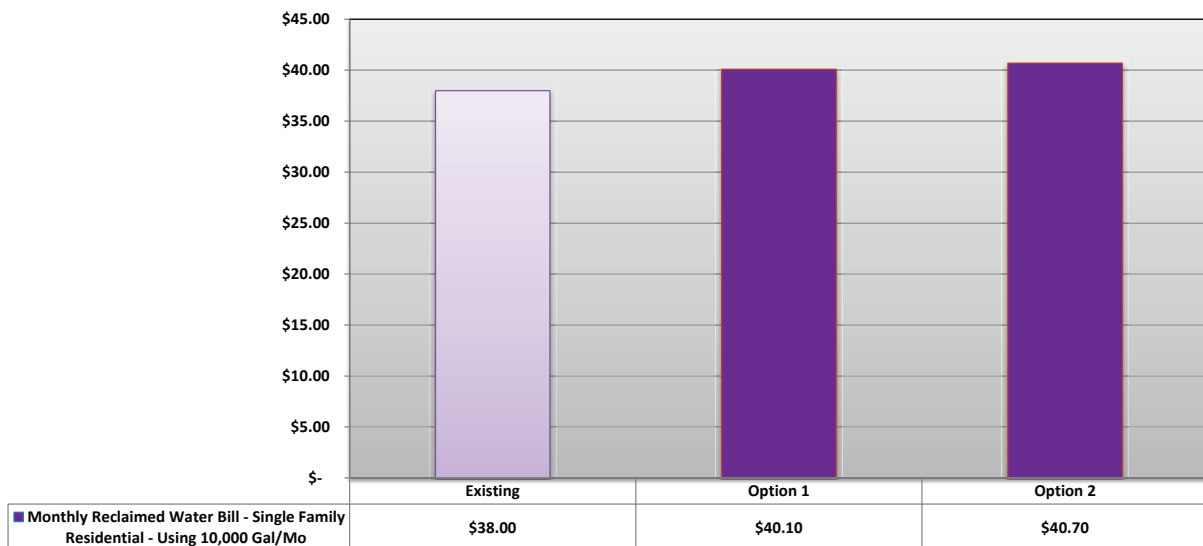
1.4.1.2. Reclaimed Water Rate Option 2

Reclaimed water rate option 2 assumes the existing reclaimed water rates are increased by 7.0% in order to meet all funding requirements and financial policies EXCEPT the policy that the Utility maintain debt service at less than 20% of revenues.

Monthly Reclaimed Water Bill - Single Family Residential - Using 5,000 Gal/Mo



Monthly Reclaimed Water Bill - Single Family Residential - Using 10,000 Gal/Mo



Stormwater Rate Study Development and Results

1.5. Summary of Stormwater Rate Study Scenarios

During the conduct of the Rate Study, we evaluated numerous options. The following are the options agreed upon by Staff and Willdan, after review of several options with the Water Commission, which warranted inclusion in the Report.

The following table summarizes the Stormwater Rate Study Options. Further review of any particular scenario may be done by reviewing the requisite section of the report pertaining to the option the reviewer wishes to investigate.

Description of Stormwater Rate Study Options		
Option	Financial Plan Option	Description
Option 1	3.0% Annual Increase in Rate Revenue	Funds Baseline \$400,000 per year of Capital Projects - with Cash
Option 2	6.0% Annual Increase in Rate Revenue	Funds \$600,000 per year of Capital Projects - with Cash
Option 3	6.0% Annual Increase in Rate Revenue	Funds \$1,000,000 per year of Capital Projects - with Cash/Debt
Option 4	15.0% Annual Increase in Rate Revenue	Funds Rio De Flag Capital Projects (~\$15M) - with Cash/Debt

1.5.1 Stormwater Rates Under Option 1

The proposed Stormwater rates presented in the table below are projected to fund the operating and capital costs presented in Option 1. It is important to note that this scenario assumes funding of the Capital Plan with cash only.

Option 1												
Stormwater												
Stormwater Rates per ERU												
	Stormwater Rate per ERU											
	FY 15		FY 16		FY 17		FY 18		FY 19		FY 20	
1 ERU	\$	1.30	\$	1.34	\$	1.39	\$	1.44	\$	1.49	\$	1.54
Avg. Single Family Residential (3 ERUs)	\$	3.90	\$	4.02	\$	4.17	\$	4.32	\$	4.47	\$	4.62
Monthly \$ Change			\$	0.12	\$	0.15	\$	0.15	\$	0.15	\$	0.15
**Rates presented in this table could differ slightly from % increases quoted in report due to rounding.												

**Rates presented in this table could differ slightly from % increases quoted in report due to rounding.

1.5.2 Stormwater Rates Under Option 2

The proposed Stormwater rates presented in the table below are projected to fund the operating and capital costs presented in Option 2. It is important to note that this scenario assumes funding of the Capital Plan with cash only.

Option 2												
Stormwater												
Stormwater Rates per ERU												
Stormwater Rate per ERU												
		FY 15		FY 16		FY 17		FY 18		FY 19		FY 20
1 ERU	\$	1.30	\$	1.38	\$	1.47	\$	1.56	\$	1.66	\$	1.76
Avg. Single Family Residential (3 ERUs)	\$	3.90	\$	4.14	\$	4.41	\$	4.68	\$	4.98	\$	5.28
Monthly \$ Change			\$	0.24	\$	0.27	\$	0.27	\$	0.30	\$	0.30
**Rates presented in this table could differ slightly from % increases quoted in report due to rounding.												

1.5.3 Stormwater Rates Under Option 3

The proposed Stormwater rates presented in the table below are projected to fund the operating and capital costs presented in Option 3. It is important to note that this scenario assumes funding of the Capital Plan with both cash and new debt.

Option 3												
Stormwater												
Stormwater Rates per ERU												
Stormwater Rate per ERU												
		FY 15		FY 16		FY 17		FY 18		FY 19		FY 20
1 ERU	\$	1.30	\$	1.38	\$	1.47	\$	1.56	\$	1.66	\$	1.71
Avg. Single Family Residential (3 ERUs)	\$	3.90	\$	4.14	\$	4.41	\$	4.68	\$	4.98	\$	5.13
Monthly \$ Change			\$	0.24	\$	0.27	\$	0.27	\$	0.30	\$	0.15
**Rates presented in this table could differ slightly from % increases quoted in report due to rounding.												

1.5.4 Stormwater Rates Under Option 4

The proposed Stormwater rates presented in the table below are projected to fund the operating and capital costs presented in Option 4. It is important to note that this scenario assumes funding of the Capital Plan with both cash and new debt.

Option 4												
Stormwater												
Stormwater Rates per ERU												
	Stormwater Rate per ERU											
	FY 15		FY 16		FY 17		FY 18		FY 19		FY 20	
1 ERU	\$	1.30	\$	1.50	\$	1.73	\$	1.99	\$	2.29	\$	2.36
Avg. Single Family Residential (3 ERUs)	\$	3.90	\$	4.50	\$	5.19	\$	5.97	\$	6.87	\$	7.08
Monthly \$ Change			\$	0.60	\$	0.69	\$	0.78	\$	0.90	\$	0.21
**Rates presented in this table could differ slightly from % increases quoted in report due to rounding.												